C. Amendment to the Claims:

Please cancel all claims as filed without prejudice except for claim 26, and please amend claim 26 as follows. In addition, please add new claims 34-62 as follows:

Claims 1-25 (Canceled).

Claim 26. (Currently amended) A method of treating a condition in a mammal produced by immune system dysfunction that is associated with reduced levels of γ-interferon production, which comprises administering to the mammal the R(-) enantiomer of desmethylselegiline, or a pharmaceutically acceptable acid addition salt thereof, at a daily dose, administered in a single or multiple dosage regimen, of at least about 0.015 mg, calculated on the basis of the free secondary amine, per kg of the mammal's body weight, wherein the administration of the R(-) enantiomer of desmethylselegiline or a pharmaceutically acceptable acid addition salt thereof leads to an increase in γ-interferon production in the mammal.

Claims 27-33 (Canceled).

Claim 34. (New) The method of claim 26, wherein said R(-) enantiomer of desmethylselegiline is in a substantially enantiomerically pure state.

Claim 35. (New) The method of claim 26, wherein the condition produced by immune system dysfunction is caused by infectious disease.

Claim 36. (New) The method of claim 26, wherein the immune system dysfunction is age-dependent.

Claim 37. (New) The method of claim 26, wherein the condition produced by immune system dysfunction is AIDS.

Claim 38. (New) The method of claim 26, wherein the condition produced by immune system dysfunction is cancer.

Claim 39. (New) The method of claim 26, wherein the condition produced by immune system dysfunction is in response to a vaccine.

Claim 40. (New) The method of claim 26, wherein the daily dose is between about 0.5 mg/kg and about 1.0 mg/kg.

Claim 41. (New) The method of claim 26, wherein the daily dose is at least about 1.0 mg/kg.

Claim 42. (New) The method of claim 26, wherein the mammal is a human.

Claim 43. (New) A method of treating a condition in a mammal produced by immune system dysfunction caused by cancer chemotherapy which is associated with reduced levels of γ-interferon production, which comprises administering to the mammal the R(-) enantiomer of desmethylselegiline, or a pharmaceutically acceptable acid addition salt thereof, at a daily dose, administered in a single or multiple dosage regimen, of at least about 0.015 mg, calculated on the basis of the free secondary amine, per kg of the mammal's body weight, wherein the administration of the R(-) enantiomer of desmethylselegiline or a pharmaceutically acceptable acid addition salt thereof leads to an increase in γ-interferon production in the mammal.

Claim 44. (New) The method of claim 43, wherein the R(-) enantiomer of desmethylselegiline is in a substantially enantiomerically pure state.

Claim 45. (New) The method of claim 43, wherein the mammal is a human.

Claim 46. (New) A method of treating a condition in a mammal produced by immune system dysfunction that is associated with reduced levels of γ-interferon production, which comprises administering to the mammal the R(-) enantiomer of desmethylselegiline, or a pharmaceutically acceptable acid addition salt thereof, wherein the administration of the R(-) enantiomer of desmethylselegiline or a pharmaceutically acceptable acid addition salt thereof leads to an increase in γ-interferon production in the mammal.

Claim 47. (New) The method of claim 46, wherein the R(-) enantiomer of desmethylselegiline is in a substantially enantiomerically pure state.

Claim 48. (New) The method of claim 46, wherein the mammal is a human.

Claim 49. (New) The method of claim 46, wherein the R(-) enantiomer of desmethylselegiline or a pharmaceutically acceptable acid addition salt thereof is administered orally.

Claim 50. (New) The method of claim 46, wherein the R(-) enantiomer of desmethylselegiline or a pharmaceutically acceptable acid addition salt thereof is administered non-orally.

Claim 51. (New) The method of claim 46, wherein the R(-) enantiomer of desmethylselegiline or a pharmaceutically acceptable acid addition salt thereof is administered parenterally.

Claim 52. (New) The method of claim 46, wherein the R(-) enantiomer of desmethylselegiline or a pharmaceutically acceptable acid addition salt thereof is administered transdermally.

Claim 53. (New) The method of claim 46, wherein the R(-) enantiomer of desmethylselegiline or a pharmaceutically acceptable acid addition salt thereof is administered buccally or sublingually.

Claim 54. (New) The method of claim 46, wherein the R(-) enantiomer of desmethylselegiline or a pharmaceutically acceptable acid addition salt thereof is administered intravenously.

Claim 55. (New) The method of claim 46, wherein the R(-) enantiomer of desmethylselegiline or a pharmaceutically acceptable acid addition salt thereof is administered subcutaneously.

Claim 56. (New) The method of claim 46, wherein the R(-) enantiomer of desmethylselegiline or a pharmaceutically acceptable acid addition salt thereof is administered intra-peritoneally.

Claim 57. (New) The method of claim 46, wherein the R(-) enantiomer of desmethylselegiline is administered at a daily dose of at least about 0.015 mg/kg of the mammal's body weight, calculated on the basis of the free secondary amine.

Claim 58. (New) The method of claim 46, wherein the condition produced by immune system dysfunction is caused by infectious disease.

Claim 59. (New) The method of claim 46, wherein the immune system dysfunction is age-dependent.

Claim 60. (New) The method of claim 46, wherein the condition produced by immune system dysfunction is AIDS.

Claim 61. (New) The method of claim 46, wherein the condition produced by immune system dysfunction is cancer.

Claim 62. (New) The method of claim 46, wherein the condition produced by immune system dysfunction is in response to a vaccine.

D. Entry of Formal Drawings:

Please enter the enclosed 17 sheets of formal drawings to replace the informal drawings presently in the application.